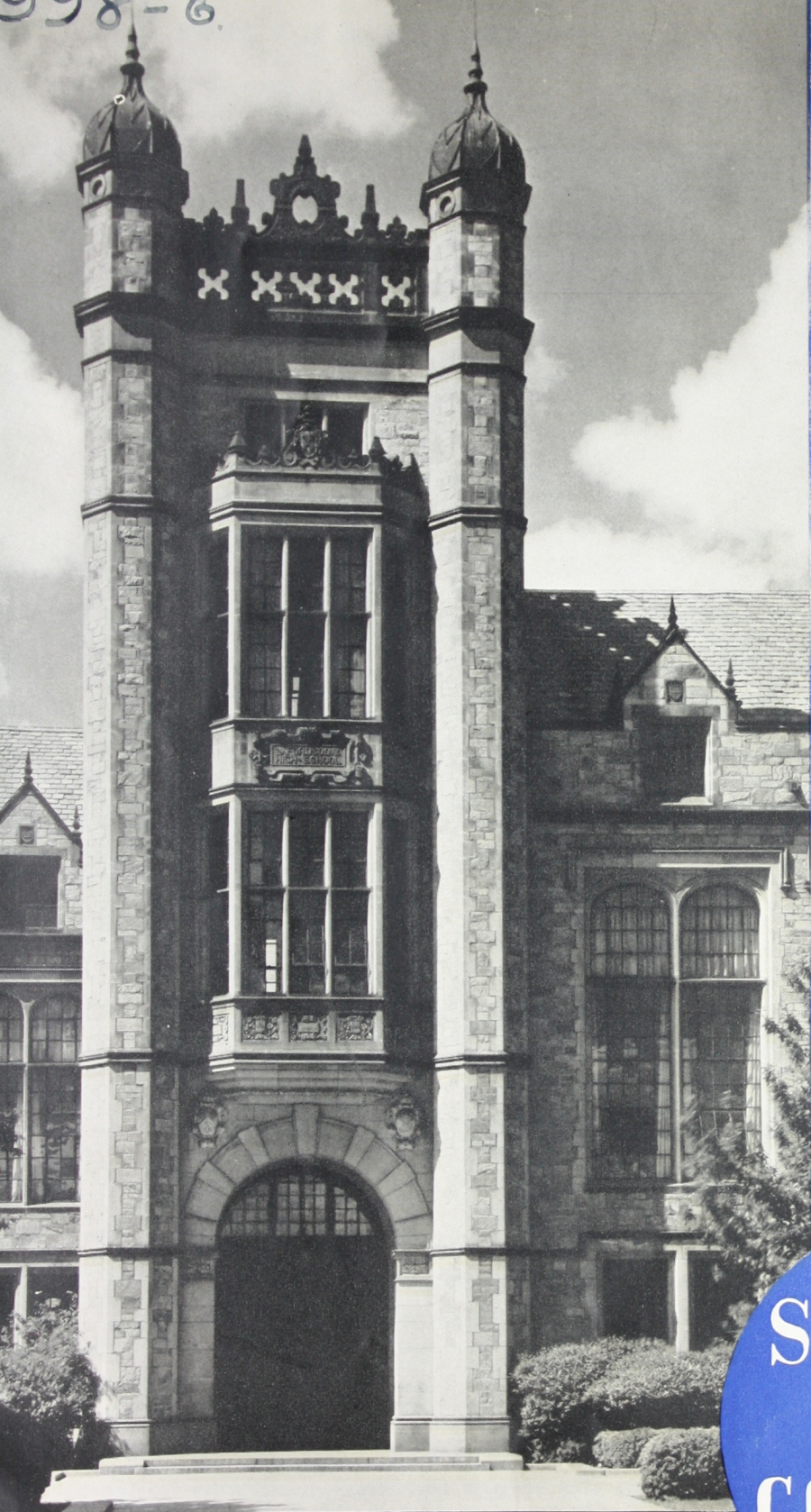


28-6

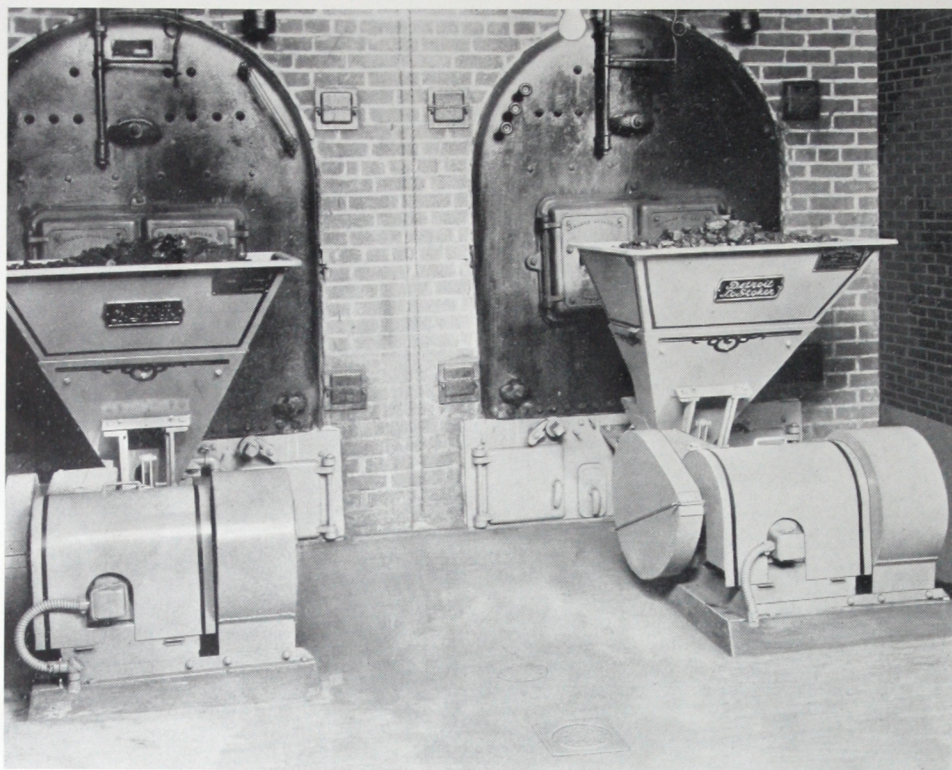
JUN 14 1937



SCHOOLS
and
COLLEGES

Economical HEAT *Automatic*

FRANKLIN INSTITUTE
PHILADELPHIA



Boyd School, Monroe, Michigan

The Most Economical Method of Heating Schools and Colleges

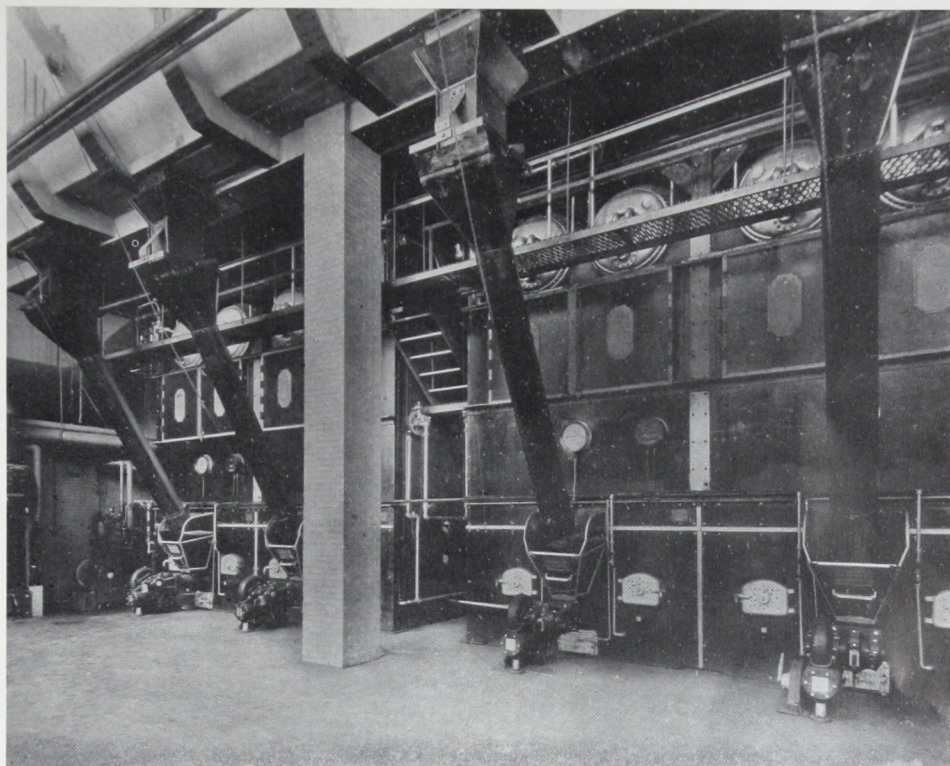
- Coal . . . the basic fuel . . . as burned with Detroit Stokers is the most economical and dependable method of producing heat. Experience has proven that Detroit Stokers are unsurpassed in low operating cost . . . in their ability to secure high efficiency from boilers of all types and sizes. Economies obtainable with medium sized boilers are now comparable with those in larger plants.

- Savings are surprisingly high where

Detroit Stokers have replaced other firing methods. . . . No special coal is required and often less expensive grades of coal can be used.

- Detroit Stokers are automatically controlled and respond readily to changes in the steam required. Uniform boiler pressure is maintained.

- Frequently the fireman has considerable time to attend to other duties around the building, thus saving labor.



Fordson High School, Dearborn, Michigan

Detroit Stokers

Dependable and Convenient

● DESIGN

Detroit Stokers are of the dependable plunger feed, side cleaning, mechanically driven type. Simple in design, but heavily built for years of continual hard service.

● CONSTRUCTION

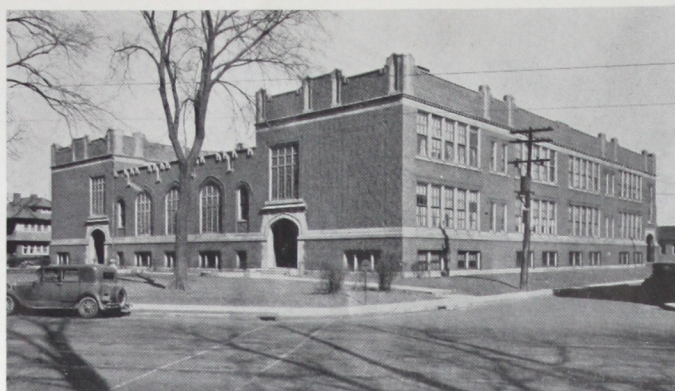
Detroit Stokers are completely assembled and carefully inspected at our own Works prior to shipment. This insures prompt installation under the supervision of one of our experienced Erection Superintendents.

● APPLICATION

Each proposed installation is carefully studied from an engineering standpoint. The proper size and type of Detroit Stoker is recommended to best suit the particular plant. Easily applied to boilers already installed.

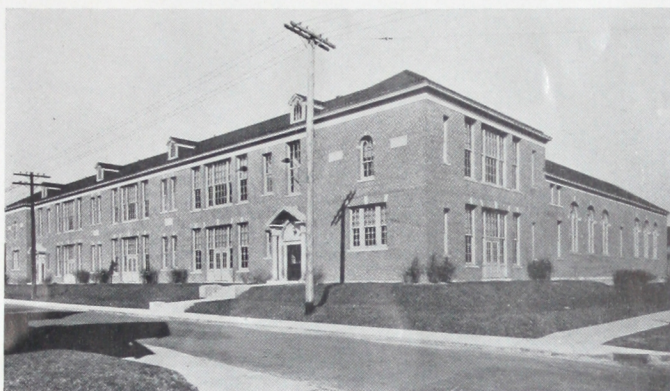
● PERFORMANCE

Detroit Stokers are economical because the fuel is gradually fed into the furnace beneath the incandescent zone, and is completely burned. Objectionable smoke is eliminated.



Cherry School, Toledo, Ohio

**Detroit Stokers
Reduced Fuel Costs 53%**
at Cherry School, Toledo, Ohio



Feilbach School, Toledo, Ohio, Adjacent to the Cherry School
Samuel R. Lewis, Consulting Engineer, Chicago

and also—
Saved Large Investment
at new Feilbach School, Toledo, Ohio

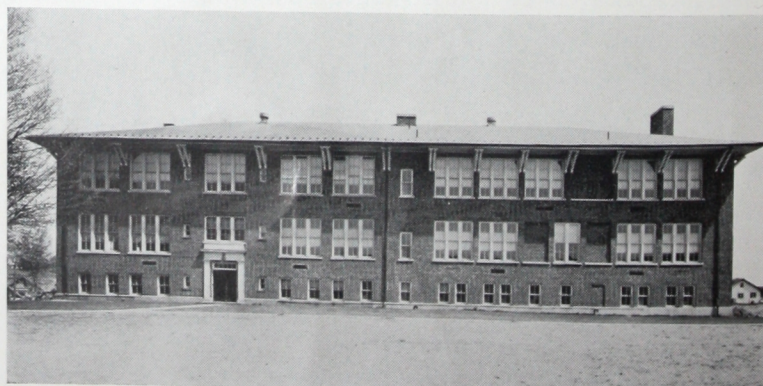
● Before Detroit Stokers were installed, Cherry School, Toledo, Ohio, had an annual fuel cost of \$1.40 per 1000 cubic feet of space heated. Detroit Stokers with the original boilers, reduced this to \$0.649—a 53% reduction. Also the capital investment in a heating plant in the new Feilbach School was saved. The

new Feilbach School requires about 82% as much steam as the Cherry School and is adjacent to it on the same plot of ground. Detroit Stokers increased the capacity of the Cherry School's boilers sufficiently to take care of the heating requirements of the new Feilbach School.



Otisville (N. Y.) High School Cuts Coal Bill 27% with Detroit Stoker

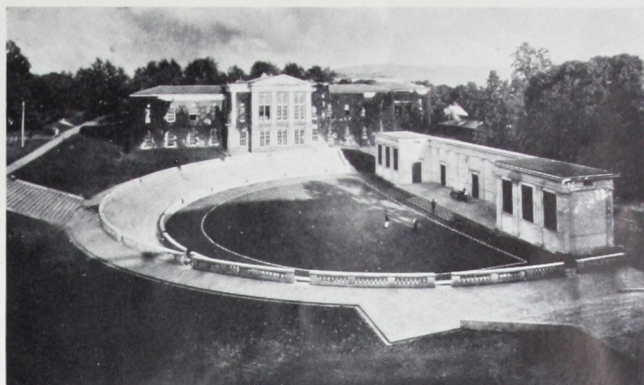
● Board of Education reports a fuel cost of \$1599.69 for the heating season (1933-34) prior to the installation of a Detroit LoStoker. After installation the coal bill (1934-35) was only \$1151.89—a saving of 27%. For the second season (1935-36) of LoStoker operation a further reduction to \$1096.54 was reported.



Otisville High School, Otisville, N. Y.

Detroit Stokers Helped Save \$73,000 in Virginia State Institutions

● University of Virginia, Virginia Polytechnic Institute, College of William and Mary, and three State Teachers Colleges are among the eleven State Institutional Plants that were modernized by Mr. Adolph Wagner (Supervisor of State Power Plants) when he reported an annual saving of \$73,000 in the State's coal bill. Detroit Stokers installed in these Educational Institutions played an important part in effecting this saving.

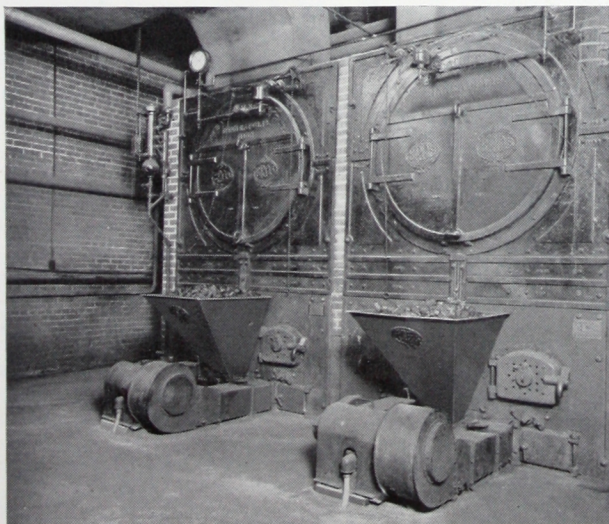
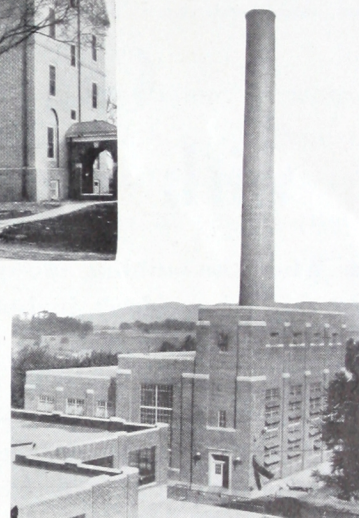


University of Virginia, Charlottesville, Va.



(Above)
College of William and Mary, Williamsburg, Va.

(At Right)
Power Plant—Virginia Polytechnic Institute,
Blacksburg, Va.



Detroit LoStokers at St. Benedict's School, Highland Park, Mich.
Donaldson & Meier, Architects, Detroit
McColl, Snyder & McLean, Consulting Engineers, Detroit

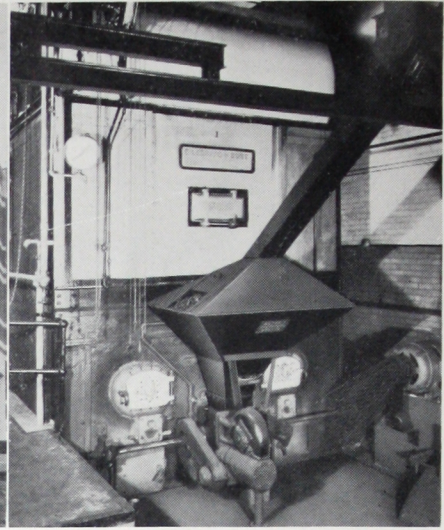
\$500 a year Fuel Saving, more uniform heating

● St. Benedict's School, Highland Park, Mich., says:

"Since installing Detroit LoStokers we now burn nut, pea and slack. Our saving averages \$1.25 a ton delivered. We burn four hundred tons, average, a year. The direct fuel saving is \$500 a year. We also burn less coal. Heating is more uniform due to the automatic operation. Our janitors now spend a great deal of time on work about the buildings, thus saving labor."



Wentworth Technical Schools, Hamilton, Ont.
Bernard H. and Fred Prack, Architects & Consulting Engineers, Hamilton



One of Two New Detroit Stoker Fired Boilers

Coal cost reduced \$2093 with heating load increased 65%

● When the building shown above was added to the group which included the Technical School and the Ontario Training College (Hamilton, Ontario), the heating load was increased approximately 65%. But the coal cost was not correspondingly increased—as a matter of fact, it was reduced \$2,093 (from \$7,251 for the 1931-2 heating season to \$5,158

for the 1932-33 season).

This substantial saving in the face of a great load increase was made possible by the installation of Detroit Stokers with two new 250 horsepower boilers at the time the new building was added. These replaced four hand fired boilers, which were removed to make room for the new equipment.



37½% Fuel Saving at Stillwater (Minn.)



Stillwater High School, Stillwater, Minn.
Rose & Harris, Consulting Engineers, Minneapolis

High School

● For the three heating seasons prior to the installation of a Detroit LoStoker, the average fuel bill for the Stillwater (Minn.) High School was \$4,016.28. During the first heating season when the LoStoker was used, the coal cost was only \$2,509.92—a saving of 37½% from the average of the previous three years.

School Enlarged 60% with coal consumption reduced by 100 tons



South High School, Youngstown, Ohio

● When enlarging South High School (Board of Education), Youngstown, Ohio, 42,000 square feet of floor space were added—a 60% increase in heating demand. One Detroit Single Retort Stoker was installed so that present boiler equipment could take care of the requirements. In spite of the increased load, there

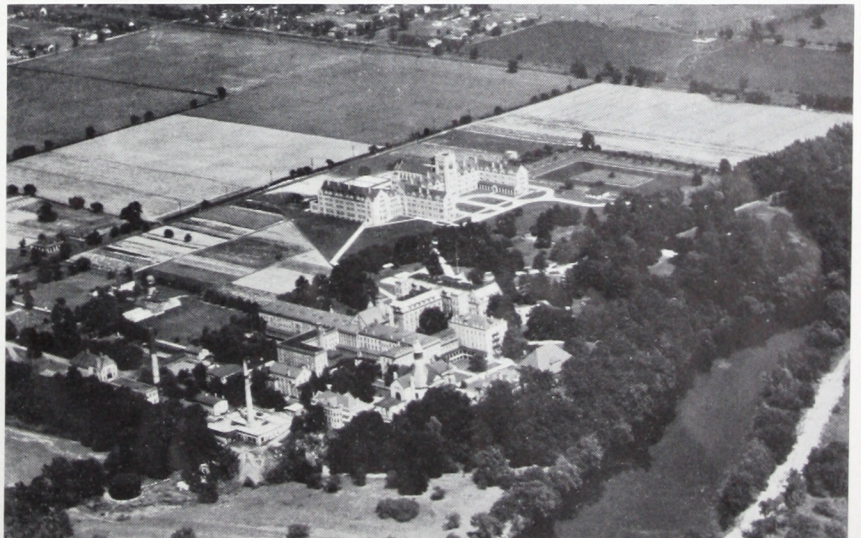
was a reduction in coal consumption of approximately 100 tons yearly.

This saving and the satisfactory performance of Detroit Stokers in other Youngstown schools, resulted in the installation of a total of eighteen Detroit Stokers in ten Youngstown schools.



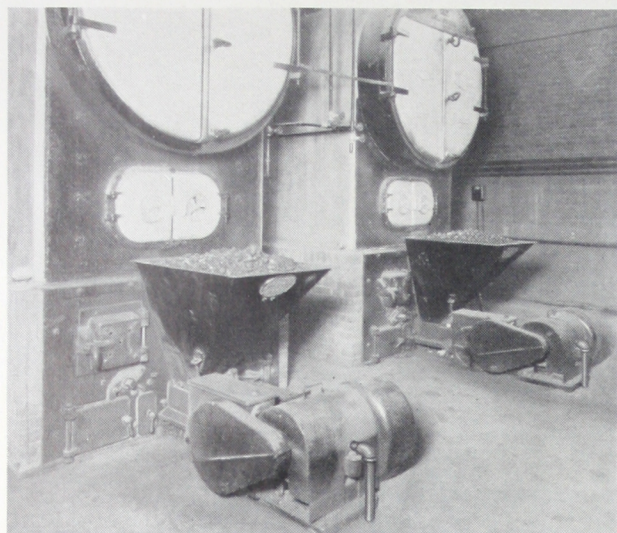
Estimate 20% Return on Investment in Plant Modernization

● Mr. T. H. Bowland, Chief Engineer, St. Mary's College and Academy, Notre Dame, Indiana, writes: "Installation of three new stoker fired boilers and auxiliaries . . . have not only produced excellent savings but have assured continuous, dependable service for a long time to come. Conservative estimates indicate that savings will pay for all improvements in about five years."

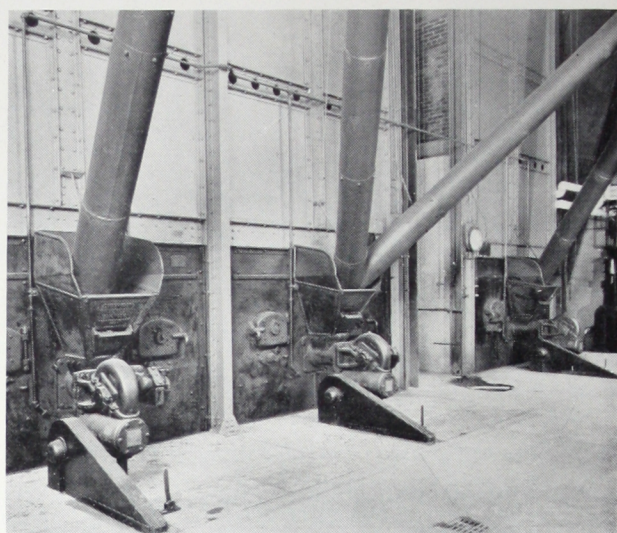


St. Mary's College & Academy, Notre Dame, Ind.
C. C. Wilcox, Consulting Engineer, South Bend

Proper Application



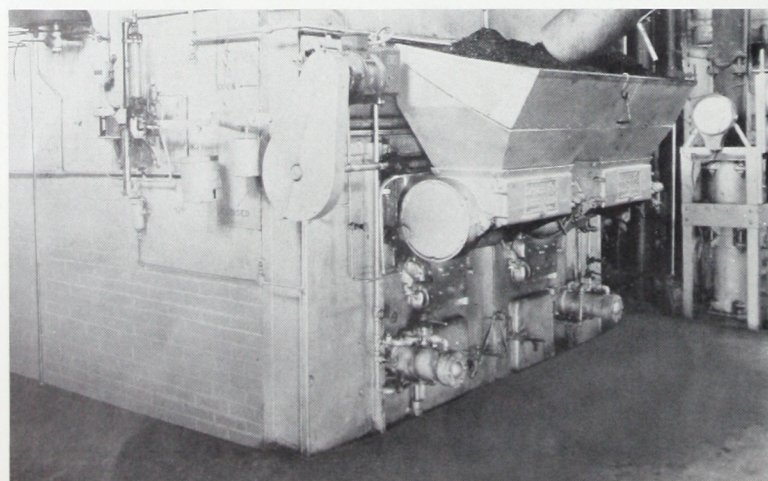
DETROIT LOSTOKERS with FIREBOX BOILERS
Cathedral Latin High School, Cleveland, Ohio
William Koehl, Architect, Cleveland
H. M. Nobis, Consulting Engineer, Cleveland



DETROIT SINGLE RETORT STOKERS with WATER TUBE BOILERS
Marygrove College, Detroit, Mich.
D. A. Bohlen & Sons, Architects, Indianapolis
S. E. Fenstermaker & Co., Consulting Engineers, Indianapolis

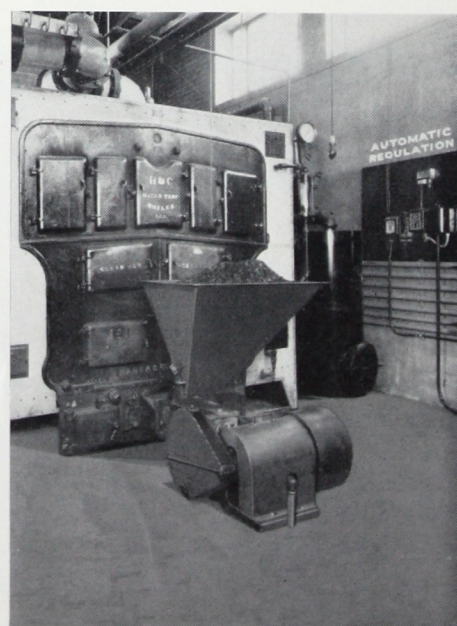


DETROIT UNISTOKERS with FIREBOX BOILERS
Shorewood High School, Shorewood, Wis.
Herbst & Kuenzli, Architects & Engineers, Milwaukee



ONE OF TWO DETROIT ROTOSTOKERS with WATER TUBE BOILERS
University of Colorado, Boulder, Colo.

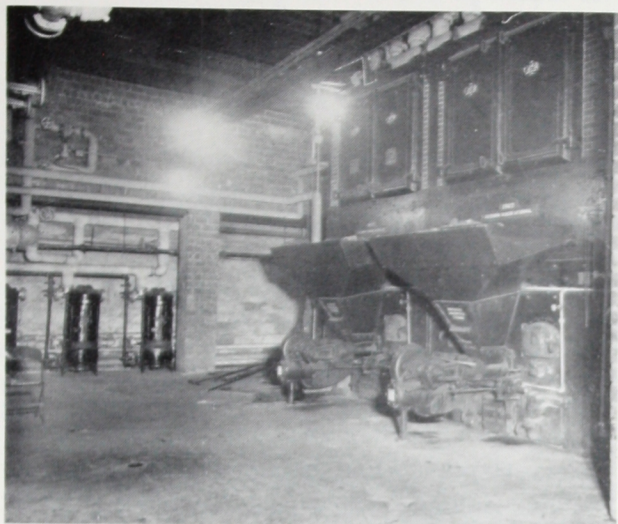
**Economically applied
to all types and sizes
of boilers. Readily
installed with boilers
already in service**



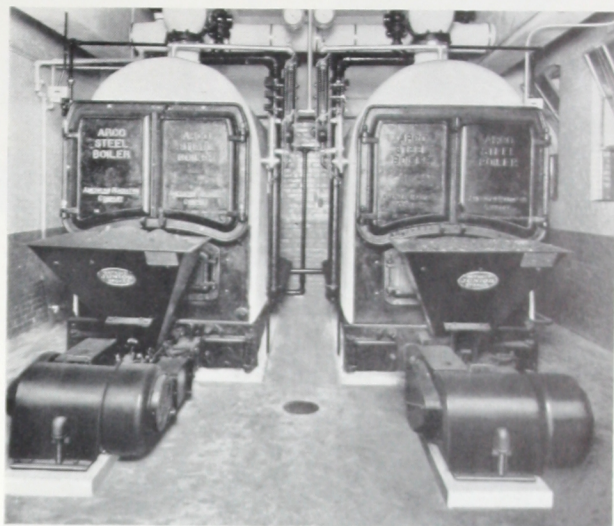
DETROIT LOSTOKER with CAST IRON BOILER
Thayer School, Dearborn, Mich.

IN SCHOOLS AND COLLEGES EVERYWHERE

For All Boilers

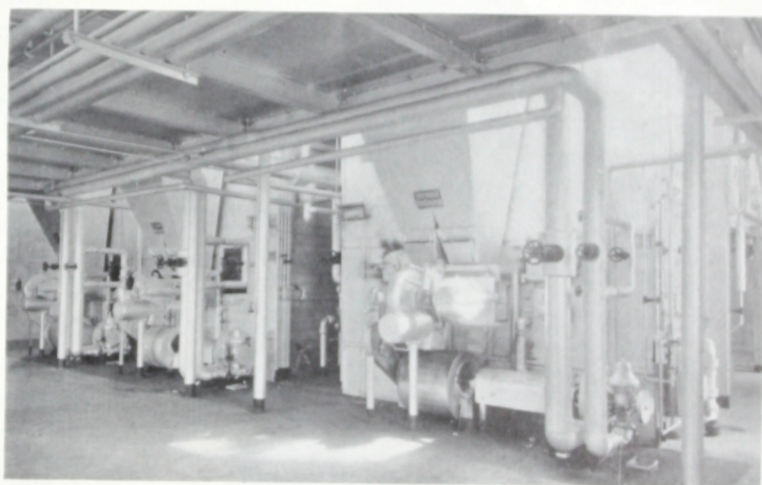


DETROIT SINGLE RETORT STOKERS with WATER TUBE BOILERS
Geo. Washington Junior High School, New Castle, Pa.
The Thayer Company, Architects, New Castle

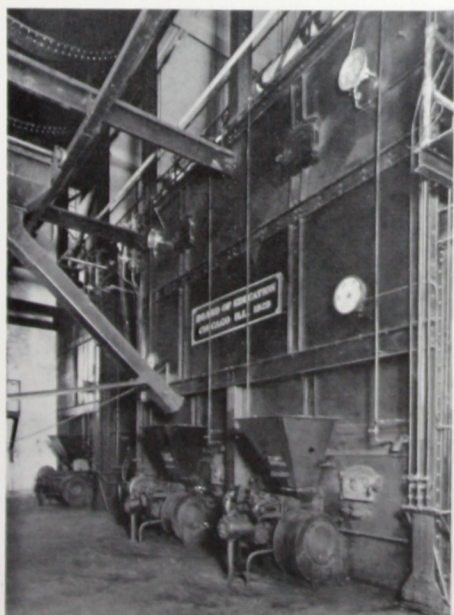


DETROIT LOSTOKERS with FIREBOX BOILERS
Public School No. 74, Baltimore, Md.
Reeder, Eiser & Akers, Consulting Engineers, Baltimore

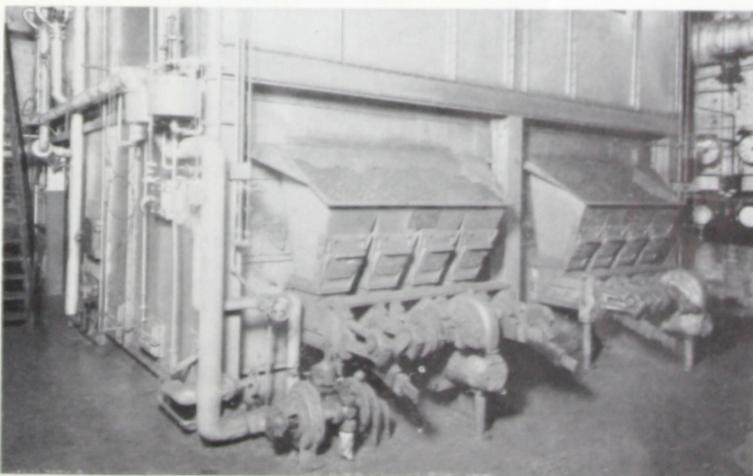
Detroit Stokers offer many features of design that provide an unequalled measure of value



DETROIT DOUBLE RETORT STOKERS with WATER TUBE BOILERS
St. Mary's College and Academy, Monroe, Mich.
D. A. Bohlen & Sons, Architects, Indianapolis
S. E. Fenstermaker & Co., Consulting Engineers, Indianapolis

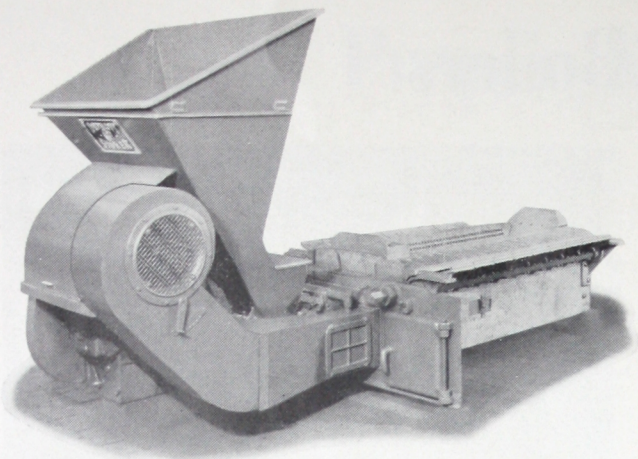


DETROIT UNISTOKERS with WATER TUBE BOILERS
Von Steuben High School, Chicago, Ill.
John C. Christenson, Archt., Bd. of Ed., Chicago
John Howatt, Eng., Bd. of Ed., Chicago

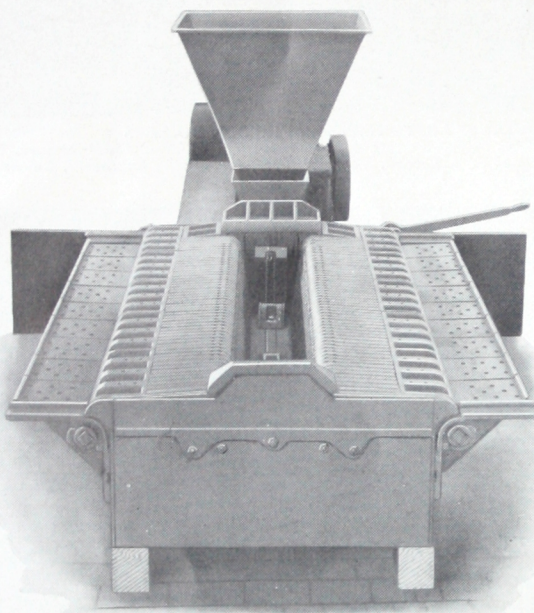


DETROIT MULTIPLE RETORT STOKERS with WATER TUBE BOILERS
Catholic University of America, Washington, D. C.
Stone & Webster, Consulting Engineers, New York

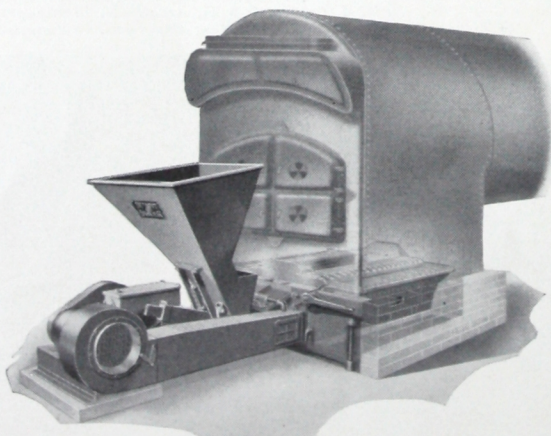
DETROIT STOKERS BURN LESS EXPENSIVE COAL



Detroit LoStoker, dependable, plunger feed side cleaning type. Agitator in the large coal hopper assures a continual flow of fuel to the plunger.



Detroit LoStoker (rear view) is built in various widths and lengths to fit the furnace. A large active grate area is provided.



Detroit LoStoker with a Firebox boiler. Coal hopper is designed to clear the boiler fire doors for access to the furnace. Ashes removed through doors shown in the stoker front.

Simple Operation of Detroit Stokers

All the Steam You Want When You Want It

● Consider the advantages of uniform boiler operation with Detroit Stokers. Plunger feed is the most positive and dependable method. Coal is fed only when needed and in the quantity required. A large active grate area, with air supplied to all points of fuel bed is provided. Positive control of fuel movement and ashes to the dumping grates at the side of the furnace assures high operating efficiency at all ratings. Side cleaning—a simple turn of the dumping lever deposits the ashes into ash pit for cooling before convenient removal through doors provided in the Stoker front.

Detroit Stokers are flexible in operation. Quick demands for steam are easily met. Boilers can be taken from a banked condition to full rating in a few minutes without smoke. Fire can be banked with minimum amount of coal. The fireman is often free to attend to other duties, thus saving labor.

Detroit Stokers may be driven by either electric motor, steam turbine or engine. Little power is required for operation. They can be automatically controlled from steam pressure, water temperature or room temperature.

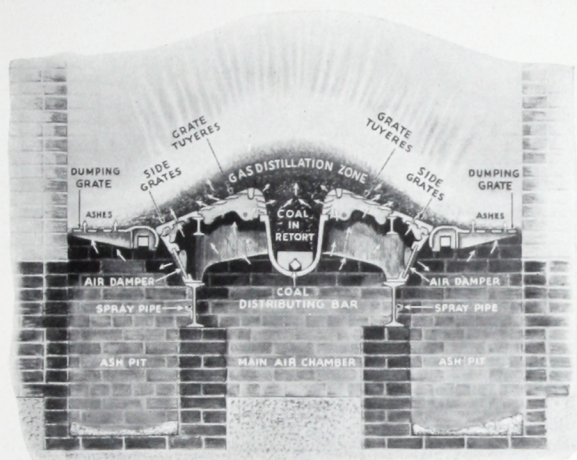
Detroit Stokers are built in various types and many sizes—including both Underfeed and Overfeed Stokers to serve boilers from approximately 30 horsepower and upwards. Bituminous coals, obtainable in all sections, are successfully burned.

Complete catalogs are available describing the many features, embodied in the various designs which represent over thirty-five years experience in Stoker manufacture exclusively.

Plunger Feed Assures Dependable and Accurate Control of the Fuel Bed

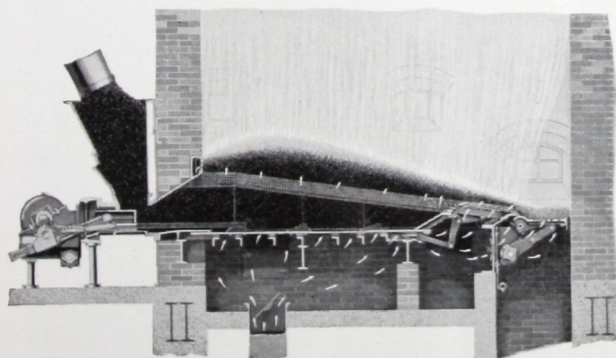
● Detroit UniStoker is self contained—Each boiler and Stoker is a combined unit. Is conveniently installed in small boiler rooms where space is limited.

Detroit UniStoker is mechanically driven by two sets of machine cut worms and gears, fully enclosed, running in oil. Simplicity of design permits of heavy construction for continual hard service.

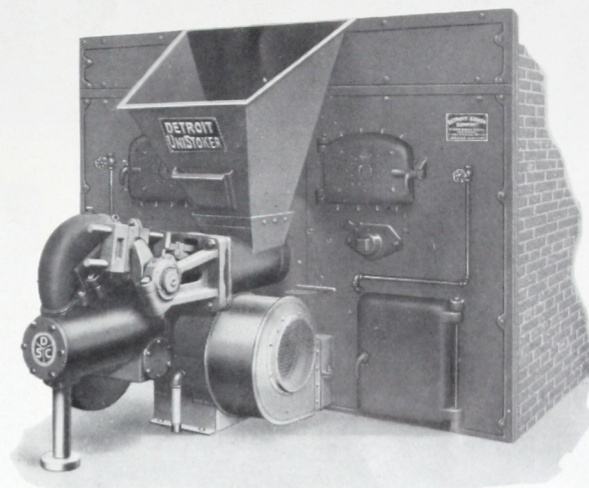


Detroit UniStoker.

● Detroit UniStoker is built in many sizes and capacities to fit the furnace. Just the proper amount of grate surface is provided to handle the heavy loads and yet operate efficiently with light loads. The fuel bed is all active as every portion of the grate surface is penetrated by an infinite number of air streams.

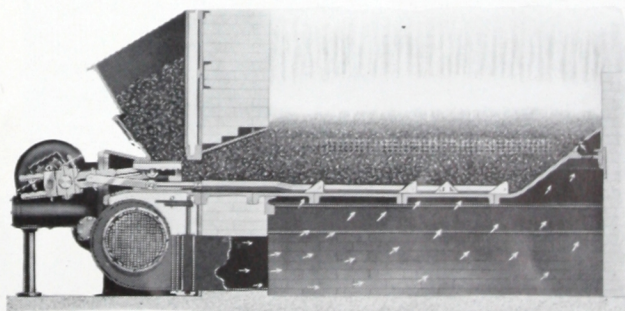


Detroit Multiple Retort Stoker (side view).



Detroit UniStoker.

● The Detroit UniStoker is provided with adjustments of fuel feed and distribution that may be made while the Stoker is operating. Arrows indicate flow of air from the full housed blower, mounted at the stoker front in proportion to the fuel, supplied to insure complete combustion on all boiler loads. The slicing action of the distribution bar makes the stoker continually self-cleaning.



Detroit UniStoker (side view).

● Although Detroit Multiple Retort Stokers are for large boilers and permit high ratings, they also operate efficiently under moderate load conditions. This is due to the unique design which combines an inclined fuel bed with horizontal retorts. Independent control of the quantity of coal supplied and the distribution for each retort is provided.



BURLINGTON, VT. University of Vermont
McKim, Mead & White, Architects, New York
Tenney & Ohmes, Consulting Engineers, New York

Proper design and application by experienced builders will produce best results for you



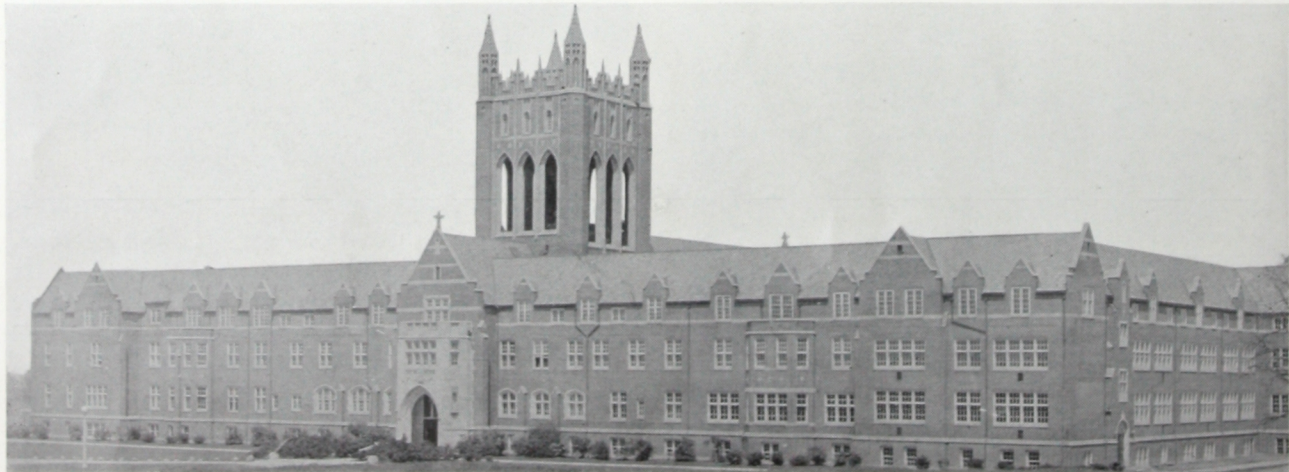
BUFFALO, N. Y. Burgard Vocational High School



GLENCOE, MINN. Glencoe High School
Rose & Harris, Consulting Engineers, Minneapolis



ANDERSON, IND. Washington School
Erwin F. Miller, Architect, Anderson

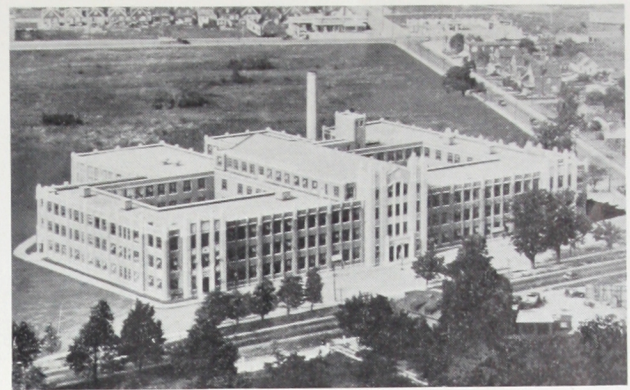


WESTMONT, ILL.

St. Joseph's College

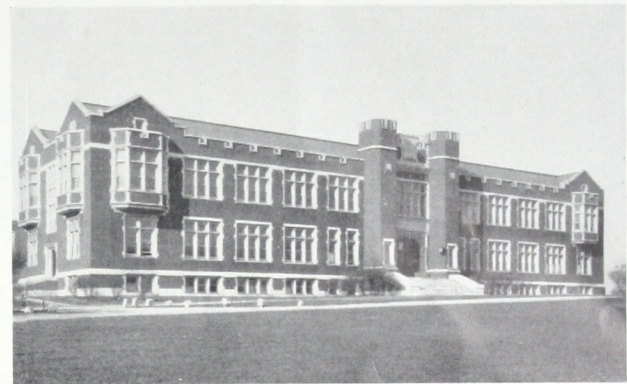


SWARTHMORE, PA. Swarthmore College
H. B. Hackett, Consulting Engineer, Philadelphia

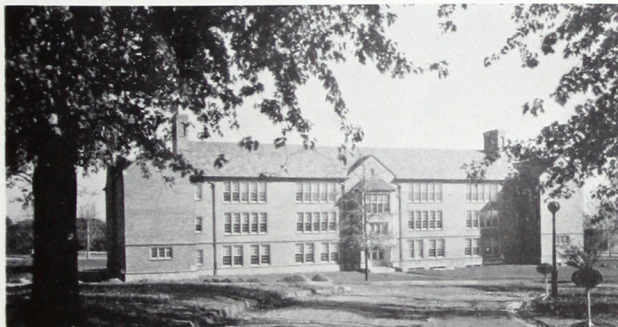


HAMILTON, ONT. Westdale School
Bernard and Fred Prack, Architects, Hamilton

**Provide automatic heat
in many modern schools
in various sections**



CINCINNATI, OHIO Hebrew Union College
Carl J. Kiefer, Consulting Engineer, Cincinnati



NORMANDY, MISSOURI Normandy High School
William B. Ittner, Inc., Architects, St. Louis
Rodney W. Smith, Mechanical Engineer



CHARLESTON, SOUTH CAROLINA Charleston High School
Reeder, Eiser and Akers, Consulting Engineers, Baltimore



DETROIT, MICH. Roosevelt Group of Schools

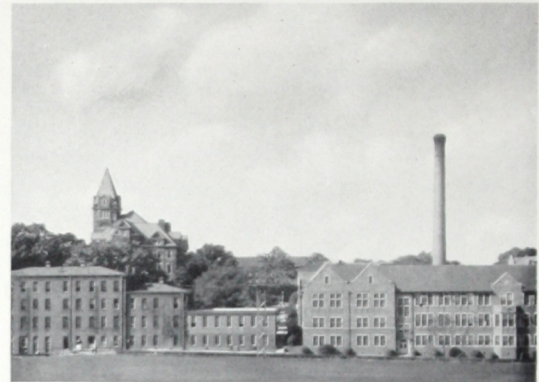
Malcomson, Higginbotham & Trout, Architects, Detroit
McColl, Snyder & McLean, Consulting Engineers, Detroit



BOULDER, COLO.

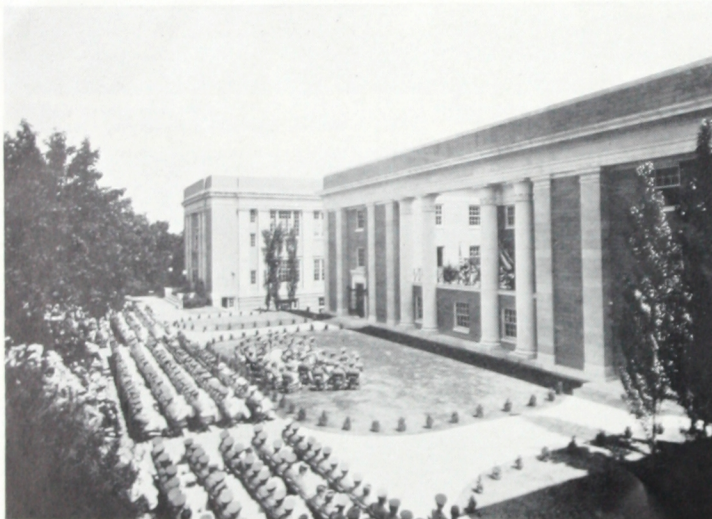
University of Colorado

**Installed under the
direction of leading
Architects and Engineers**



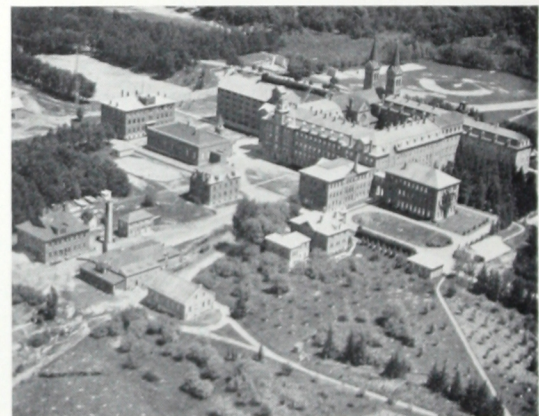
ATLANTA, GA.

Georgia School of Technology



STAUNTON, VA.

Stanton Military Academy
Adolph Wagner, Consulting Engineer, Richmond



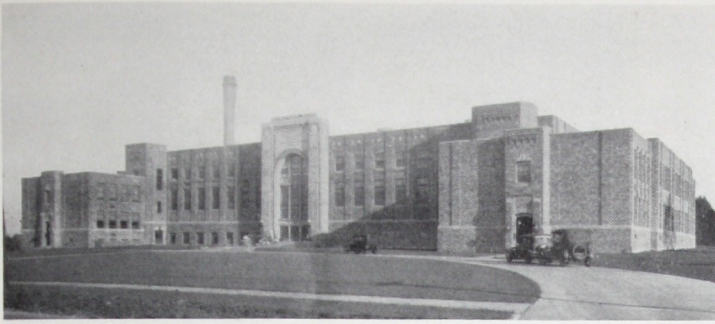
COLLEGEVILLE, MINN.

St. John's University



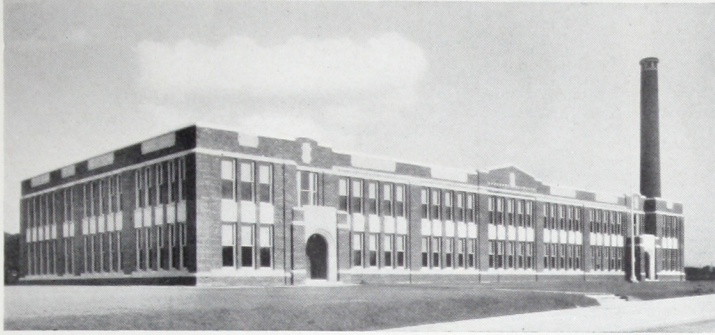
DETROIT, MICH.

Benjamin A. Nolan School
Smith, Hinchman & Grylls, Architects & Engineers, Detroit



NEW CASTLE, PA.

Geo. Washington Jr. High School
The Thayer Co., Architects, New Castle



FLINT, MICH.

McKinley Elementary School
Malcomson, Higginbotham & Trout, Architects, Detroit
McColl, Snyder & McLean, Consulting Engineers, Detroit



CHICAGO, ILL.

Mundelein College
Joe W. McCarthy, Architect, Chicago
G. M. Orr, Consulting Engineer, Minneapolis



LOUISVILLE, KY.

Louisville Girls High School
Warren & Ronald, Inc., Consulting Engineers, Louisville



GEORGETOWN, DEL.

Georgetown High School
Brown & Whiteside, Architects, Wilmington
Robt. E. Schoenijahn, Consulting Engineer, Wilmington



TOLEDO, OHIO

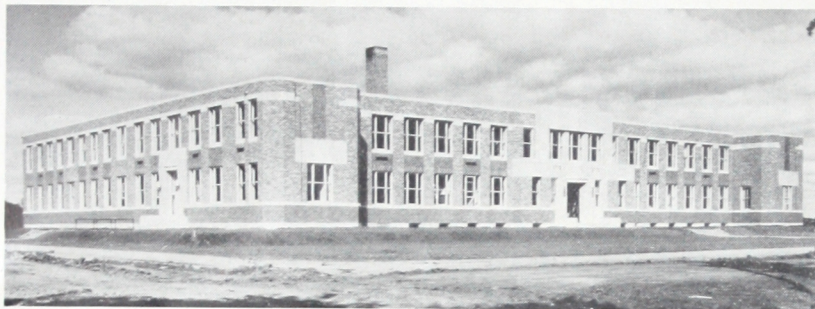
DeVilbiss High School
Edwin M. Gee, Architect, Toledo
Samuel R. Lewis, Consulting Engineer, Chicago



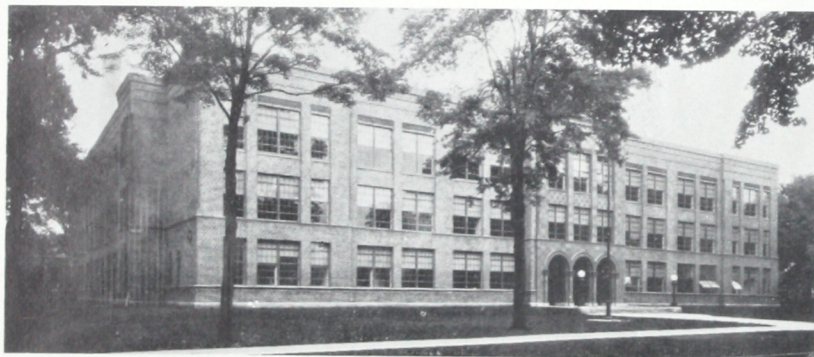
CLEVELAND, OHIO
 Louis Agassiz School
 Division of Architecture, Board of Education, Cleveland
 Geo. E. Hausman, Engineer, Board of Education, Cleveland



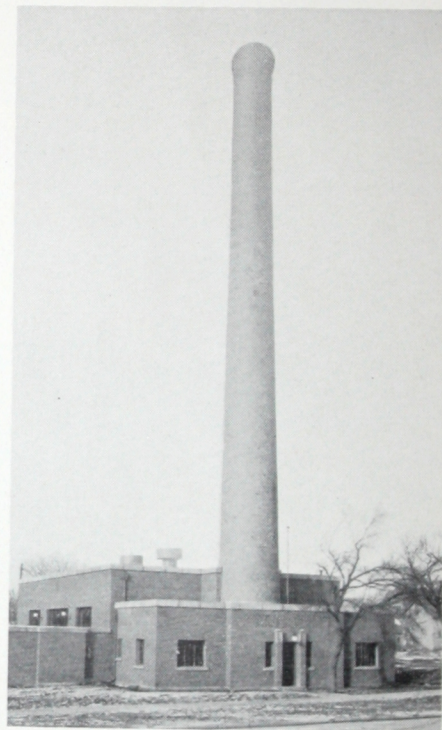
BLOOMINGTON, ILL.
 Illinois Wesleyan University



BRECKENRIDGE, MINN.
 Breckenridge High School
 Nairne W. Fisher, Architect, St. Cloud
 Anthony D. Martino, Consulting Engineer, Minneapolis



MONROE, MICH.
 Monroe High School
 Turner & Thebaud, Architects, Grand Rapids
 W. W. Bradfield, Consulting Engineer, Grand Rapids



YANKTON, SOUTH DAKOTA
 Heating Plant—Yankton College
 Geo. W. Elmslie, Architect, Chicago
 Samuel R. Lewis, Consulting Engineer, Chicago



DETROIT, MICH.
 Duns Scotus College
 Wilfrid Edwards Anthony, Architect, New York
 Offner & McKnight, Consulting Engineer, New York



HOLLINS, VA. *Hollins College*
Wiley & Wilson, Consulting Engineers, Richmond



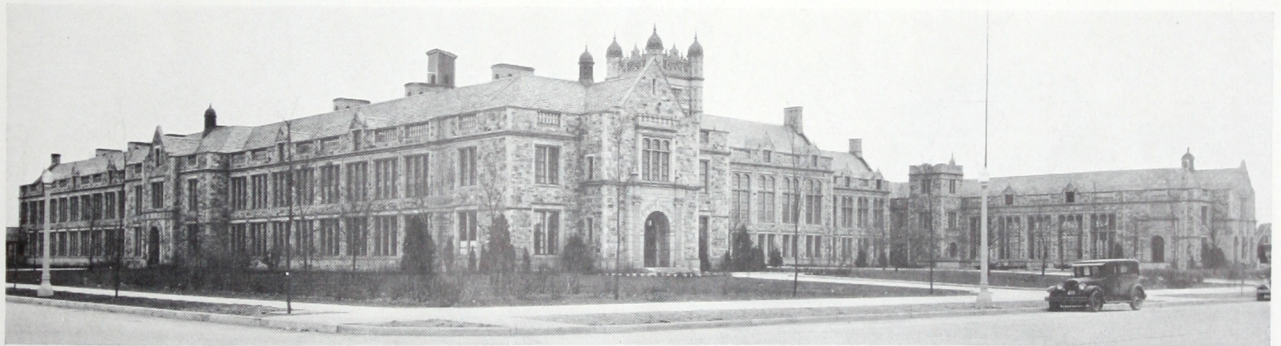
PITTSBURGH, PA. *Clifford B. Connelly Trade School*
Edward B. Lee, Architect, Pittsburgh
C. L. Wooldridge, Consulting Engineer, Pittsburgh

**Detroit stokers will
reduce your cost of
producing steam**



WINNIPEG, MAN.

University of Manitoba



DEARBORN, MICH.

Fordson High School
VanLeyen, Schilling & Keough, Architects & Engineers, Detroit



ST. PAUL, MINN.

St. Thomas College



BALTIMORE, MD.

Baltimore Public School No. 74
Davis Brothers, Architects, Baltimore
Chas. L. Reeder, Consulting Engineer, Baltimore



YELLOW SPRINGS, OHIO Antioch College
Eastman & Budke, Architects, Springfield



LOUISVILLE, KY.

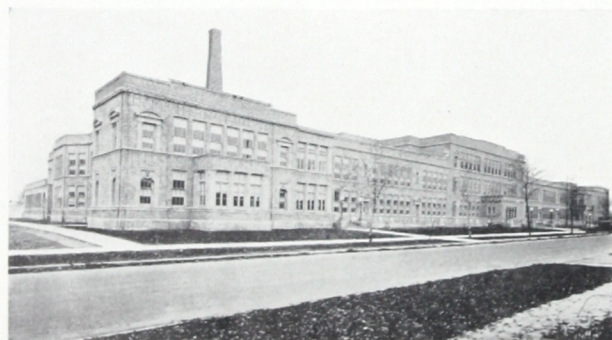
University of Louisville



ANOKA, MINN.

Anoka High School

**Built for continual
and dependable
hard service**



GRAND RAPIDS, MICH. Burton School
Robinson & Campau, Architects, Grand Rapids
Bryon E. Parks & Son, Consulting Engineers, Grand Rapids



ASHEVILLE, NORTH CAROLINA Asheville High School
Douglas D. Ellington, Architect, Asheville
Lydon & Cousart, Consulting Engineers, Charlotte



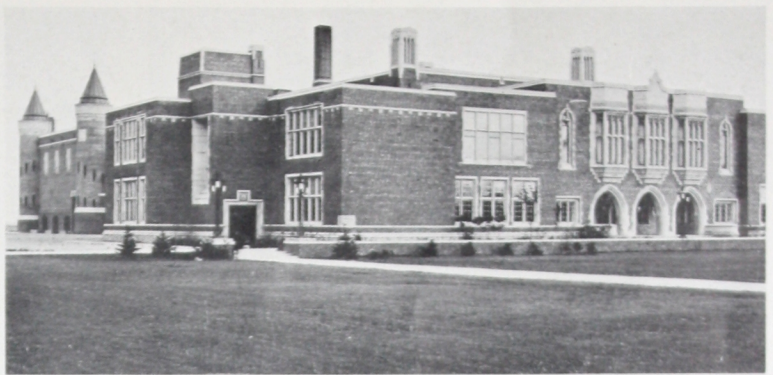
DETROIT, MICH.

Cooley High School
Donaldson & Meier, Architects, Detroit
McColl, Snyder & McLean, Consulting Engineers, Detroit

IN SCHOOLS AND COLLEGES EVERYWHERE



WASHINGTON, D. C. Catholic University of America
Stone & Webster, Consulting Engineers, New York



WINDSOR, ONT.

Kennedy Collegiate School
Cameron & Ralston, Architects, Windsor
Farrell & White, Consulting Engineers, Detroit



OLIVET, MICH. Olivet College
McColl, Snyder & McLean, Consult. Engineers, Detroit



CHICAGO, ILL.

Wright Junior College
John C. Christenson, Architect, Board of Education, Chicago
John Howatt, Chief Engineer, Board of Education, Chicago



MAPLEWOOD, MISSOURI

Maplewood High School
Wm. B. Ittner, Inc., Architect, St. Louis
Rodney W. Smith, Mechanical Engineer



MILWAUKEE, WIS.

Mount Mary College
Herbst & Kuenzli, Architects, Milwaukee



E. LANSING, MICH.

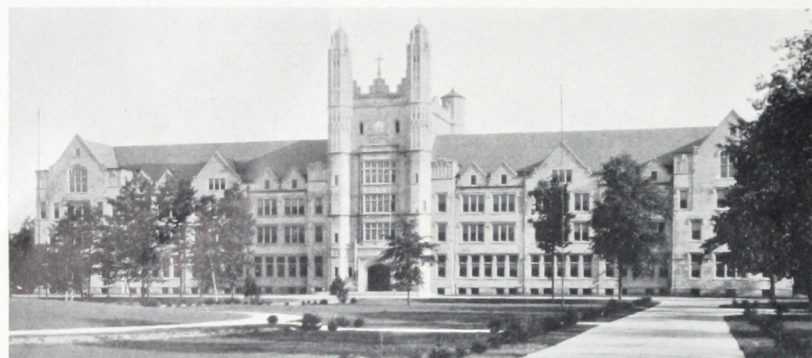
Michigan State College



PENNINGTON, N. J.

Pennington School

*Horace W. Castor, Architect, Philadelphia
Stewart A. Jellett Co., Consulting Engineers, Philadelphia*

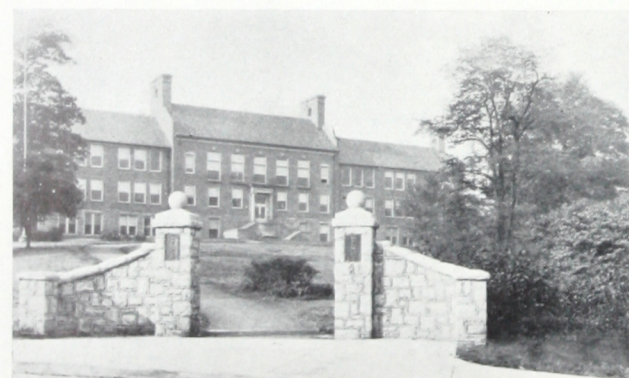


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*Carber & Woodward, Architects, Cincinnati
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WASHINGTON, D. C. Theodore Roosevelt High School
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SYRACUSE, N. Y. Central High School
A. L. Brockway, Architect, Syracuse
A. R. Acheson, Consulting Engineer, Syracuse



OWOSSO, MICH. Owosso High School
William B. Ittner, Inc., Architects, St. Louis
Rodney W. Smith, Mechanical Engineer



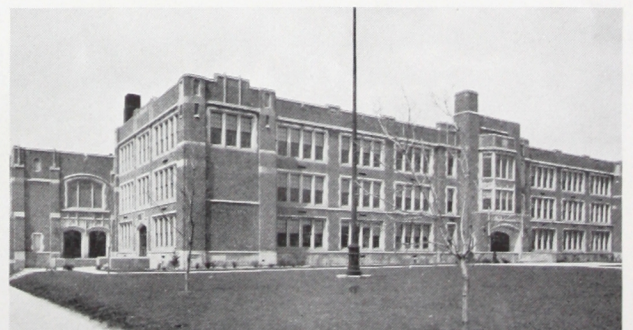
HAMILTON, ONT. Queen Mary School
W. J. Walsh, Jr., Architect, Hamilton



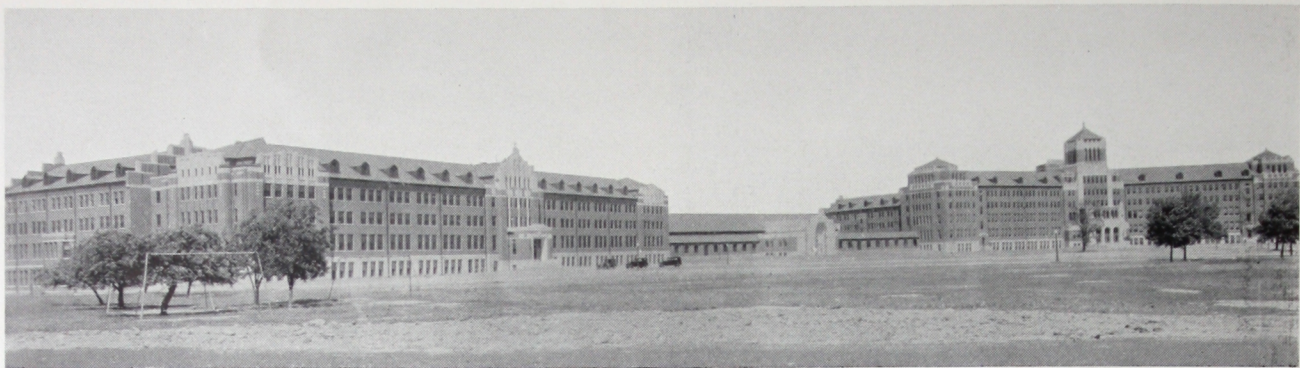
CLOQUET, MINN. Cloquet High School



ANN ARBOR, MICH. St. Thomas School
McColl, Snyder & McLean, Consulting Engineers, Detroit



ROYAL OAK, MICH. Royal Oak High School
Frederick D. Madison, Architect, Royal Oak
Ray S. M. Wilde, Consulting Engineer, Detroit



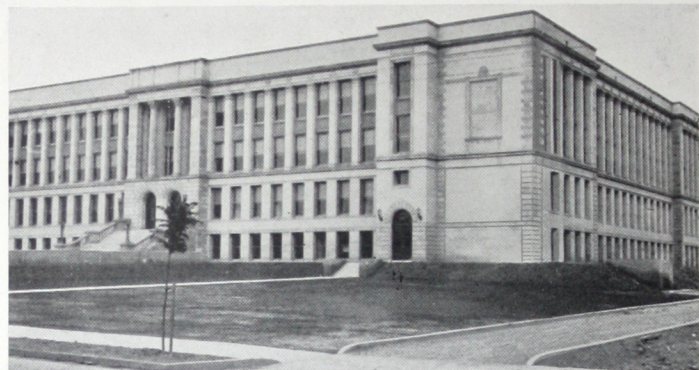
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Western Kentucky State Teachers College
Brinton B. Davis, Architect, Louisville
Wallace Hoeing, Consulting Engineer, Louisville



BUFFALO, N. Y.

Riverside High School
F. J. Kidd and W. A. Kidd, Architects, Buffalo
H. P. Dempsey, Consulting Engineer, Buffalo



COLUMBUS, OHIO

Central High School
William B. Ittner, Inc., Architects, St. Louis
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